

## Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



Edition of October 24, 1912.

# United States Department of Agriculture,

DIVISION OF PUBLICATIONS—Circular 16.

JOS. A. ARNOLD, Editor and Chief.

WASHINGTON, D. C., *October 17, 1912.*

---

## PUBLICATIONS OF THE BUREAU OF ENTOMOLOGY.

NOTE.—Application for publications in this list should be made to the Editor and Chief of the Division of Publications, United States Department of Agriculture, Washington, D. C. The editions of some of the publications are necessarily limited, and when the supply is exhausted and no funds are available for procuring additional copies, applicants are referred to the Superintendent of Documents, Government Printing Office, who has them for sale at a nominal price, under the law of January 12, 1895. Applicants are urgently requested to ask only for those publications in which they are particularly interested. The department can not undertake to supply complete sets, nor is it allowable to send more than one copy of any publication to an applicant.

### REPORTS.

Report of the Entomologist for the year 1908.

Same, 1910.

### BULLETINS (NEW SERIES).

[In applying for these bulletins the name of the bureau as well as the number of the bulletin should be given, as "Bureau of Entomology, Bulletin, N. S., No. 4."]

Bul. 4. The Principal Household Insects of the United States.

13. Recent Laws Against Injurious Insects in North America, Together with Laws Relative to Foul Brood, 1898.

26. Proceedings of the Twelfth Annual Meeting of the Association of Economic Entomologists.

29. The Fall Army Worm and Variegated Cutworm.

33. Some Insects Injurious to Vegetable Crops.

36. An Index to Bulletins Nos. 1-30 (new series) (1896-1901) of the Division of Entomology.

37. Proceedings of the Fourteenth Annual Meeting of the Association of Economic Entomologists.

42. Some Insects Attacking the Stems of Growing Wheat, Rye, Barley, and Oats, with Methods for Combating Them.

43. A Brief Account of the Principal Insect Enemies of the Sugar Beet.

44. Some Miscellaneous Results of the Work of the Division of Entomology.

46. Proceedings of the Sixteenth Annual Meeting of the Association of Economic Entomologists.

47. Catalogue of the Exhibit of Economic Entomology at the Louisiana Purchase Exposition, St. Louis, Mo., 1904.

- Bul. 49. Report on the Habits of the Kelep, or Guatemalan Cotton-boll-weevil Ant.
56. The Black Hills Beetle, with Further Notes on its Distribution, Life History, and Methods of Control.
58. Some Insects Injurious to Forests. [Complete in 5 parts and index.]
59. Proliferation as a Factor in the Natural Control of the Mexican Cotton Boll Weevil.
60. Proceedings of the Eighteenth Annual Meeting of the Association of Economic Entomologists.
63. Papers on the Cotton Boll Weevil and Related and Associated Insects. [Complete in 7 parts and index.]
- Same, Part 1.—Hibernation and Development of the Cotton Boll Weevil.
- Same, Part 2.—Notes on the Biology of Certain Weevils Related to the Cotton Boll Weevil.
- Same, Part 3.—An Ant Enemy of the Cotton Boll Weevil.
- Same, Supplement.—Contents and Index.
64. Some Miscellaneous Results of the Work of the Bureau of Entomology. Part 6.—The Greenhouse Thrips.
- Same, Supplement.—Contents and Index.
65. The Tobacco Thrips, a New and Destructive Enemy of Shade-grown Tobacco.
66. Some Insects Injurious to Truck Crops. [Complete in 7 parts and index.]
- Same, Part 1.—The Asparagus Miner. Notes on the Asparagus Beetles.
- Same, Part 4.—The Leafhoppers of the Sugar Beet, and Their Relation to the Curly-leaf Condition.
- Same, Supplement.—Contents and Index.
68. Papers on Deciduous Fruit Insects and Insecticides. Part 4.—The Lesser Peach Borer.
- Same, Supplement.—Contents and Index.
69. The Chinch Bug.
71. The Periodical Cicada.
74. Some Factors in the Natural Control of the Mexican Cotton Boll Weevil.
75. Miscellaneous Papers on Apiculture. [Complete in 7 parts and index.]
- Same, Part 1.—Production and Care of Extracted Honey. Methods of Honey Testing for Bee Keepers.
- Same, Part 2.—Wax Moths and American Foul Brood.
- Same, Part 3.—Bee Diseases in Massachusetts.
78. Economic Loss to the People of the United States through Insects that Carry Disease.
79. Fumigation Investigations in California.
80. Papers on Deciduous Fruit Insects and Insecticides. Part 1.—The Codling Moth in the Ozarks.
- Same, Part 7.—The One-spray Method in the Control of the Codling Moth and the Plum Curculio.
- Same, Part 8.—Tests of Sprays against the European Fruit Lecanium and the European Pear Scale.
- Same, Supplement.—Contents and Index.

- Bul. 81. A List of Works on North American Entomology.
82. Some Insects Injurious to Truck Crops. Part 1.—The Colorado Potato Beetle in Virginia in 1908.  
Same, Part 2.—The Parsnip Leaf-miner. The Parsley Stalk Weevil. The Celery Caterpillar.  
Same, Part 6.—Notes on the Cucumber Beetles. Biologic Notes on Species of *Diabrotica* in Southern Texas.  
Same, Part 7.—Notes on Various Truck Insects.
83. Practical Information on the Scolytid Beetles. Part 1.—Barkbeetles of the Genus *Dendroctonus*.
84. Fumigation of Apples for the San Jose Scale.
85. Papers on Cereal and Forage Insects. Supplement.—Contents and Index.
86. Plant-bugs Injurious to Cotton Bolls.
87. Report on the Field Work Against the Gipsy Moth and the Brown-tail Moth.
88. Preventive and Remedial Work Against Mosquitoes.
89. The Grape Root-worm, with Especial Reference to Investigations in the Erie Grape Belt from 1907 to 1909.
90. Hydrocyanic-acid Gas Fumigation in California. Part 1.—Fumigation of Citrus Trees.  
Same, Part 2.—The Value of Sodium Cyanid for Fumigation Purposes.
93. The Sugar-cane Insects of Hawaii.
94. Insects Injurious to Forests and Forest Products. Part 1.—Damage to Chestnut Telephone and Telegraph Poles by Wood-boring Insects.
95. Papers on Cereal and Forage Insects. Part 1.—The Timothy Stem-borer.  
Same, Part 4.—The So-called Curlew Bug.  
Same, Part 5.—The False Wireworms of the Pacific Northwest.  
Same, Part 6.—The Legume Pod Moth. The Legume Pod Maggot.  
Same, Part 7.—The Alfalfa Looper.
96. Papers on Insects Affecting Stored Products. Part 1.—The Mexican Grain Weevil. The Siamese Grain Weevil.  
Same, Part 2.—The Broad-nosed Grain Weevil. The Long-headed Flour Beetle.  
Same, Part 3.—The Lesser Grain-borer. The Larger Grain-borer.  
Same, Part 4.—Carbon Tetrachlorid as a Substitute for Carbon Bisulphid in Fumigation against Insects.  
Same, Part 5.—The Broad-bean Weevil.
97. Papers on Deciduous Fruit Insects and Insecticides. Part 1.—Spraying Experiments against the Grape Leafhopper in the Lake Erie Valley.  
Same, Part 2.—Life History of the Codling Moth and Its Control on Pear in California.  
Same, Part 3.—Vineyard Spraying Experiments against the Rose Chafer in the Lake Erie Valley.  
Same, Part 5.—Notes on the Peach and Plum Slug.  
Same, Part 6.—Notes on the Peach Bud Mite, an Enemy to Nursery Stock.  
Same, Part 7.—The Grape Scale.
100. The Insect Enemies of the Cotton Boll Weevil.

- Bul. 102. Natural Control of White Flies in Florida.
104. The Fig Moth.
105. The Rocky Mountain Spotted Fever Tick, with Special Reference to the Problem of Its Control in the Bitter Root Valley in Montana.
109. Papers on Insects Affecting Vegetables. Part 1.—The Southern Beet Webworm.
- Same, Part 2.—The Hawaiian Beet Webworm.
- Same, Part 3.—The Imported Cabbage Worm.
- Same, Part 4.—A Little-known Cutworm.
- Same, Part 6.—The Sugar-beet Webworm.
112. Preliminary Report on the Alfalfa Weevil.
115. Papers on Deciduous Fruit Insects and Insecticides. Part 1.—Life History Studies on the Codling Moth in Michigan.
118. The Bean Thrips.

#### BULLETINS (TECHNICAL SERIES).

[In applying for these bulletins the name of the bureau as well as the number of the bulletin should be given, as "Bureau of Entomology, Bulletin, Tech. Ser., No. 8."]

- Bul. 8. Contributions Toward a Monograph of the American Aleurodidæ; Red Spiders of the United States.
12. Miscellaneous Papers. Part 6.—A Record of Results from Rearings and Dissections of Tachinidæ.
- Same, Part 8.—Biological Studies on Three Species of Aphididæ.
16. Papers on Coccidæ or Scale Insects. Part 3.—Catalogue of Recently Described Coccidæ—II.
- Same, Part 4.—Catalogue of Recently Described Coccidæ—III.
17. Contributions Toward a Monograph of Scolytid Beetles. Part 1.—Genus *Dendroctonus*. [With bibliography.]
19. Technical Results from the Gipsy Moth Parasite Laboratory. Part 3.—Investigations into the Habits of Certain Sarcophagidæ.
- Same, Part 4.—The Chalcidoid Genus *Perilampus* and Its Relations to the Problem of Parasite Introduction.
20. Technical Papers on Miscellaneous Forest Insects. Part 1.—Contributions Toward a Monograph of the Bark-weevils of the Genus *Pissodes*.
- Same, Part 2.—The Genotypes of the Sawflies and Woodwasps, or the Superfamily Tenthredinoidea.
- Same, Part 3.—A Revision of the Powder-post Beetles of the Family Lyctidæ of the United States and Europe.
- Same, Part 4.—Studies in the Sawfly Genus *Hoplocampa*.
- Same, Part 5.—A Preliminary Synopsis of Cerambycid Larvæ.
21. Synopsis, Catalogue, and Bibliography of North American Thysanoptera, with Descriptions of New Species.
22. The Structure of Certain Dipterous Larvæ with Particular Reference to those in the Human Body.
23. Miscellaneous Papers. Part 1.—Some New California and Georgia Thysanoptera.
- Same, Part 2.—An Internal Parasite of Thysanoptera.
24. The Life History of the Alder Blight Aphis.
25. Papers on Aphididæ. Part 1.—Studies on a New Species of Toxoptera, with an Analytical Key to the Genus and Notes on Rearing Methods.

## CIRCULARS.

[In applying for these circulars the name of the bureau as well as the number of the circular should be given, as "Bureau of Entomology, Circular No. 2."]

- Circ. 2. Hop Plant-louse and Remedies to be Used Against it.
4. The Army Worm.
  - 5, revised. The Carpet Beetle, or "Buffalo Moth."
  6. The Mexican Cotton-boll Weevil. Spanish edition.
  7. The Pear-tree Psylla.
  8. The Imported Elm Leaf-beetle.
  11. The Rose Chafer.
  12. The Hessian Fly.
  14. The Mexican Cotton-boll Weevil. Spanish edition.
  16. The Larger Corn Stalk-borer.
  18. The Mexican Cotton-boll Weevil. German edition.
  21. The Strawberry Weevil.
  23. The Buffalo Tree-hopper.
  24. The Two-lined Chestnut Borer.
  25. The Ox Warble.
  26. The Pear Slug.
  28. The Box-elder Plant-bug.
  29. The Fruit-tree Bark-beetle.
  31. The Striped Cucumber Beetle.
  32. The Larger Apple-tree Borer.
  34. House Ants.
  37. The Use of Hydrocyanic-acid Gas for Fumigating Greenhouses and Cold Frames.
  38. The Squash-vine Borer.
  39. The Common Squash Bug.
  43. The Pea Aphid.
  47. The Bed Bug.
  48. The House Centipede.
  49. The Silver Fish.
  50. The White Ant.
  51. Cockroaches.
  53. The Yellow-winged Locust.
  54. The Peach-tree Borer.
  56. The Most Important Step in the Cultural System of Controlling the Boll Weevil.
  57. The Greenhouse White Fly.
  61. Black Check in Western Hemlock.
  63. Root-maggots and How to Control Them.
  64. The Cottony Maple Scale.
  66. The Joint-worm.
  68. The Tobacco Thrips and Remedies to Prevent "White Veins" in Wrapper Tobacco.

- Circ. 69. Some Insects Affecting the Production of Red Clover Seed.
72. Key to the Known Larvæ of the Mosquitoes of the United States.
73. The Plum Curculio.
75. Requirements to be Complied with by Nurserymen or Others who Make Interstate Shipments of Nursery Stock.
77. Harvest Mites, or "Chiggers."
79. Brood Diseases of Bees.
80. The Melon Aphis.
81. The Aphides Affecting the Apple.
83. The Locust Borer and Methods for Its Control.
84. The Grasshopper Problem and Alfalfa Culture.
87. The Colorado Potato Beetle.
88. The Terrapin Scale.
92. Mites and Lice on Poultry.
94. The Cause of American Foul Brood.
95. The Most Important Step in the Control of the Boll Weevil.  
Same. French Edition.
96. The Catalpa Sphinx.
97. The Bagworm.
98. The Apple-tree Tent Caterpillar.
99. The Nut Weevils.
100. Index to Circulars 1 to 100.
101. The Apple Maggot or "Railroad Worm."
102. The Asparagus Beetles.
105. The Rose Slugs.
107. What Can be Done in Destroying the Cotton Boll Weevil During the Winter.
108. House Fleas.
109. The Leopard Moth.
110. The Green-striped Maple Worm.
111. Preparations for Winter Fumigation for the Citrus White Fly.
114. The Euonymus Scale.
115. The Horn Fly.
116. The Larger Corn Stalk-borer.
117. The Western Grass-stem Sawfly.
118. A Predaceous Mite Proves Noxious to Man.
119. The Clover Root-borer.
121. The Oyster-shell Scale and the Scurfy Scale.
123. Methods of Controlling Tobacco Insects.
124. The San Jose Scale and Its Control.
125. Insects Which Kill Forest Trees.
126. Insect Injuries to the Wood of Living Trees.
127. Insects Injurious to the Wood of Dying and Dead Trees.
128. Insect Injuries to Forest Products.

- Circ. 129. Insects in Their Relation to the Reduction of Future Supplies of Timber, and General Principles of Control.
130. The Oak Pruner.
  131. How to Control the Pear Thrips.
  134. Damage to Telephone and Telegraph Poles by Wood-boring Insects.
  135. The Asparagus Miner.
  136. The Distribution of the Rocky Mountain Spotted-fever Tick.
  138. The Occurrence of Bee Diseases in the United States.
  139. Damage to Sugar Cane in Louisiana by the Sugar-cane Borer.
  140. An Annotated Bibliography of the Mexican Cotton Boll Weevil.
  141. The Mango Weevil.
  142. The Indian Meal Moth and "Weevil-cut" Peanuts.
  143. Insect Damage to Standing Timber in the National Parks.
  144. The Dying Hickory Trees: Cause and Remedy.
  145. The Larger Canna Leaf-roller.
  146. The Movement of the Cotton Boll Weevil in 1911.
  148. Two Destructive Texas Ants.
  149. The Cotton Stainer.
  150. The Red Spider on Cotton.
  151. The Greenhouse Thrips.
  152. The Rice Water-weevil and Methods for Its Control.
  153. The Cotton Worm or Cotton Caterpillar.
  154. The Leaf Blister Mite.
  155. Insects Injurious to Mushrooms.
  156. Insect Damage to Mine Props and Methods of Preventing the Injury.
  157. The Cause of European Foul Brood.
  158. The Clover Mite.
  159. Damage to the Wood of Fire-killed Douglas Fir.
  160. The Mediterranean Fruit-Fly.
  161. The Manipulation of the Wax Scales of the Honey Bee.

#### MISCELLANEOUS.

[In applying for these publications the name of the bureau and the full title of the pamphlet should be given.]

Catalogue of the Exhibit of Economic Entomology at the World's Industrial and Cotton Centennial Exposition, New Orleans, 1884-85.

Practical Information on the Dendroctonus Enemies of North American Forests. The Western Pine Beetle. The Southwestern Pine Beetle. The Roundheaded Pine Beetle.

The Southern Pine Beetle.

The Mountain Pine Beetle. The Black Hills Beetle. The Jeffrey Pine Beetle. The Redwinged Pine Beetle. The Lodgepole Pine Beetle. The Allegheny Spruce Beetle. The European Spruce Beetle.

The Black Turpentine Beetle. The Red Turpentine Beetle.

The Arizona Pine Beetle. The Smaller Mexican Pine Beetle. The Larger Mexican Pine Beetle. The Colorado Pine Beetle.

The Eastern Spruce Beetle. The Engelmann Spruce Beetle. The Alaska Spruce Beetle. The Sitka Spruce Beetle.

The Eastern Larch Beetle. The Douglas Fir Beetle.

## FARMERS' BULLETINS.

[The Farmers' Bulletins are a series of popular treatises issued by the Department of Agriculture. The following list includes only numbers contributed by the Bureau of Entomology and should be applied for by number, as "Farmers' Bulletin No. 99."]

## F. B. 99. Three Insect Enemies of Shade Trees.

- 120. Insects Affecting Tobacco.
- 127. Important Insecticides.
- 155. How Insects Affect Health in Rural Districts.
- 172. Scale Insects and Mites on Citrus Trees.
- 178. Insects Injurious in Cranberry Culture.
- 196. Usefulness of the American Toad.
- 209. Controlling the Boll Weevil in Cotton Seed and at Gineries.
- 223. Miscellaneous Cotton Insects in Texas.
- 264. The Brown-tail Moth and How to Control It.
- 275. The Gipsy Moth and How to Control It.
- 283. Spraying for Apple Diseases and the Codling Moth in the Ozarks.
- 284. Insect and Fungous Enemies of the Grape East of the Rocky Mountains.
- 290. The Cotton Bollworm.
- 344. The Boll Weevil Problem, with Special Reference to Means of Reducing Damage.
- 440. Spraying Peaches for the Control of Brown-rot, Scab, and Curculio.
- 442. The Treatment of Bee Diseases.
- 444. Remedies and Preventives against Mosquitoes.
- 447. Bees.
- 450. Some Facts about Malaria.
- 453. Danger of General Spread of the Gipsy and Brown-tail Moths through Imported Nursery Stock.
- 459. House Flies.
- 476. The Dying of Pine in the Southern States: Cause, Extent, and Remedy.
- 492. The More Important Insect and Fungous Enemies of the Fruit and Foliage of the Apple.
- 500. The Control of the Boll Weevil.
- 503. Comb Honey.

## SEPARATE REPRINTS FROM THE YEARBOOK.

[In applying for these publications the number of the separate should be given, as "Yearbook Separate 196."]

## Ybk. Sep. 196. Smyrna Fig Culture in the United States.

- 386. The Principal Insect Enemies of the Peach.
- 531. Some of the More Important Ticks of the United States.
- 537. Insect Enemies of Tobacco in the United States.
- 542. Injuries to Forests and Forest Products by Roundheaded Borers.
- 561. Relation Between Rotation Systems and Insect Injury in the South.
- 583. The Value of Predaceous Beetles in Destroying Insect Pests.

Approved:

JAMES WILSON,  
*Secretary of Agriculture.*

